The Andover Summer Session

PHILLIPS ACADEMY

ANDOVER, MASSACHUSETTS

June 28 — August 10
1961

Calendar for the Summer, 1961

Tuesday, June 27th
Scholarship boys report by 1:30 p. m.

Wednesday, June 28th
Registration — 9:30-12:30; 1:30-4:30.
Tea for Parents, Andover Inn — 4:00-5:00 p. m.

Thursday, June 29th
Classes begin.

Saturday, July 1st
Closed weekend, no permissions granted.

Wednesday, July 19th
Mid-session rating.

Saturday, August 5th
Closed weekend, no permissions granted.

Wednesday, August 9th
Classes end.

Thursday, August 10th
Final examinations.
Summer Session closes 12:00 noon.

Summer Session Telephone: GReenleaf 5-3400.

Summer Session Office Hours: Weekdays: 8:00 a. m.-12:30 p. m.; 1:30-4:30 p. m. Saturdays: 8:00 a. m.- 12:00 noon.

For information regarding the Summer Session write:

MR. ROBERT P. HULBURD
Director, Andover Summer Session
Phillips Academy
Andover, Massachusetts

Phillips Academy

Phillips Academy in Andover, Massachusetts, is a college-preparatory, boarding school for boys. Now in its 182nd year, the Academy has an enrollment of over eight hundred students and a faculty of over ninety. In the session, 1959-1960, its students came from forty-two states, the District of Columbia, and seventeen foreign countries.

Phillips Academy is a liberal, modern school with a long tradition of national service and devotion to democratic ideals. It seeks to develop in its students sound scholarship and manly character, with emphasis on resourcefulness, self-reliance, and independence.

Throughout the four years of its curriculum, Andover stresses thorough training in English, foreign languages, history, mathematics, and science. There are also other liberal arts courses. Large scholarship funds put the education which it offers within reach of any serious and able student in need of aid.

The town of Andover is twenty-five miles north of Boston, from which it is easily reached by train, bus, or automobile.

The Andover Summer Session

Dating from 1942, the Andover Summer Session is an integral part of Phillips Academy. Administered by a director chosen from the Academy faculty, it comprises a

teaching staff of over thirty men, chiefly instructors in the regular session, and a student body numbering over two hundred. Ranging in age from thirteen to eighteen and in 1960 coming from thirty-four states, the District of Columbia, and three foreign countries, the boys come from widely diverse backgrounds. Some of them, already admitted to the regular session, are strengthening their preparation; many more have come to Andover to combine the experience of boarding-school life with the opportunity for serious study and academic achievement.

The curriculum is broad, and the educational standards are high. Outside the classroom there is a full boarding-school program of sports both formal and informal, and extracurricular activities. Frequent supervised excursions are offered on Saturdays and Sundays to students at their expense. These include trips to summer theatres, concerts, nearby beaches, major league baseball games and historical sites.

THE SUMMER SESSION CURRICULUM

The purpose of the Andover Summer Session is to provide an opportunity for serious study to qualified and able secondary-school students. Up to the limit of its capacity the Summer Session welcomes qualified boys from high schools and preparatory schools. *Is must be understood, however, that it is not a tutoring or cramming school, nor yet a summer camp.*

Hence, although there is opportunity for review and strengthening in basic subjects, it is expected that boys who attend for the summer only will take new and advanced work rather than review courses designed to repair previous failures.

A brief description of the courses offered in the Summer Session is given on pages 15-26 of this catalogue. *No course will be given unless it has a sufficient enrollment.* Applicants for admission are expected to make known the course which they wish to take.

Major Courses

Major courses meet two periods a day, six days a week. The Summer Session offers advanced courses in Geography, History, Physics, Chemistry, Biology; courses at elementary, intermediate and advanced levels in English, Mathematics, Modern Languages and Latin; courses in Music Appreciation and in Art.

Inasmuch as a six-weeks Summer Session cannot be the equivalent of a similar full course taken during the regular academic year at Phillips Academy, no Phillips Academy credit will be given. Students may, however, make arrangements with authorities at their own schools for the establishment of credit.

Composition

Every student attending the Summer Session is required to take a course in composition appropriate to his level. Exceptions are those students who take the Art of Communication, and those enrolled in Pre-Ninth Grade English. There are three courses in Composition: one designed for eleventh and twelfth grade students, one designed for ninth and tenth grade students, and a foundation course for those in need of a review of the fundamentals of grammar. Preliminary assignment of these courses is made on the basis of grade completed; further screening is made on the basis of tests administered during the opening days.

These courses are described in detail under *Courses,*

p. 15-26. Each meets six hours a week and requires the writing of daily themes.

ADVANCED COURSES FOR OLDER BOYS

A large number of advanced courses will be offered. A complete description of all courses begins on page 15. The following are but a few of the courses given which do not ordinarily fall within the framework of a secondary-school curriculum: "The Art of Communication;" "Developmental Reading;" "The Constitution of the U. S. and its Meaning Today;" "Probability with Applications to Elementary Statistics;" and other advanced topics in mathematics and the sciences.

In some instances these courses are offered only to boys who have completed the eleventh or twelfth grades; in other cases a prerequisite for enrollment in a course calls for previous study in that particular area.

A Class in Advanced Literature

General Information

INDIVIDUAL RESPONSIBILITY AND DISCIPLINE

Attendance at the Andover Summer Session implies a serious purpose on the part of the student and a willingness to assume a large measure of responsibility for maintaining order and for cooperating directly in the running of the Session. Rules are few and simple, and are based on the assumption that the student is able to discipline himself.

Dormitories have faculty supervision. The students themselves perform some of the everyday tasks connected with the operation of the school. They make their own beds, keep their rooms in order, serve themselves at meals, and take their turns at the regular work of the dining hall. *Every student is required to meet all his appointments.*

With the exception of the first and last weekends of the Session, a student in good standing may go to his home or visit a friend's home on any three of the remaining weekends, leaving after his last appointment on Saturday and returning in time for evening study hours on Sunday. Similar privileges are allowed for Saturday and Sunday day trips to nearby places. Before a student is permitted to visit a friend for the weekend, he must present to the Assistant Director a written invitation from his host and and written permission from his parents. All out-of-town excuses may be withheld if a student's record or effort is unsatisfactory or if, in the judgment of the faculty, his work would suffer through his absence.

Any student who shows himself unwilling to conform to the spirit of the Session, who neglects his work, or who is

believed to exercise an injurious influence upon others may be dismissed at any time.

The possession, the renting, or driving of any motor vehicle in the town of Andover is forbidden.

FACILITIES

The buildings, equipment, and facilities of the Academy are available for the Summer Session. Classes are held in the regular classroom buildings and students eat in the Commons and live in the dormitories. The Oliver Wendell Holmes Library, containing seventy-five thousand volumes, the Addison Gallery of American Art, and the museum of the Peabody Foundation for Archaeology are open throughout the summer.

THE DAILY SCHEDULE

7:10	Breakfast
7:55-8:10	Assembly
8:15-9:10	First period
9:15-10:10	Second period
10:30-11:25	Third period
11:30-12:25	Fourth period
12:30	Lunch
1:30-2:30	Conference and study period
3:00-4:30	Athletics
6:00	Dinner
8:00	Evening study period
9:45	Lights out for the younger boys
10:30	Lights out for the rest of the school
11:00	Lights out for all on Saturday evening

On Wednesday and Saturday afternoons there will be no required athletics.

On Saturday, classes begin at 8:00 a. m. and end at 12:00 noon.

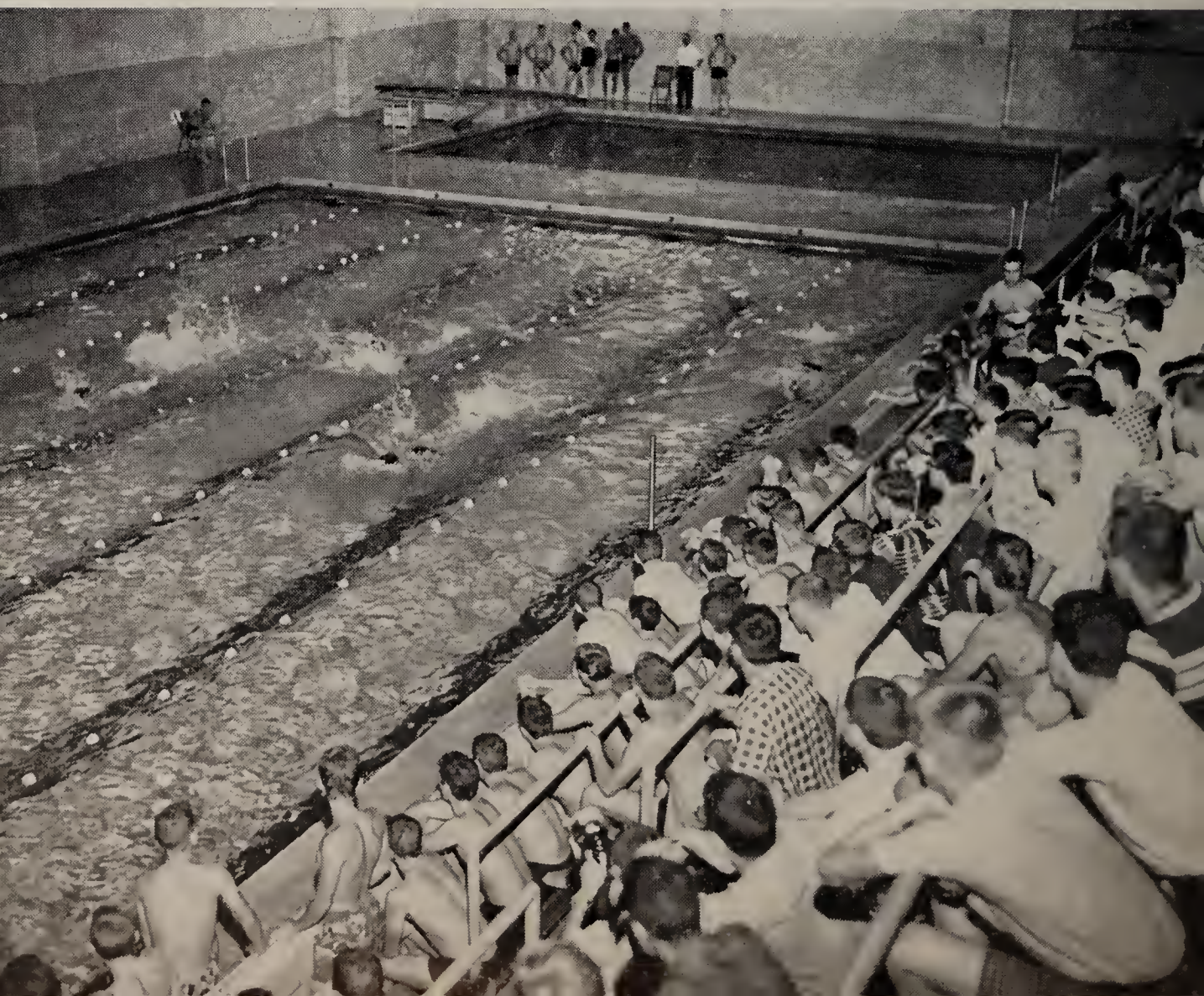
FACULTY

The faculty is drawn from the regular Academy teaching staff and supplemented by a few men from other leading secondary schools. The Trustees and Headmaster of Phillips Academy have full authority over the Summer Session. Immediate control is in the hands of the Director.

PHYSICAL FITNESS AND SPORTS

The Summer Session has a comprehensive health and athletic program. Unless excused by the school physician, each student takes part in the athletic program four days a week.

Organized programs in tennis, track, swimming and baseball are offered. The numerous Academy playing fields and tennis courts provide excellent facilities. The six-lane swimming pool with separate diving pool is used for the regular swimming program. Also available for



Match courts with Cage, Gymnasium, and hockey rink in background

general use are the pool, volley ball and basketball courts, and other facilities in the gymnasium.

On Fridays and rainy days interdormitory competitions are held. On rainy days the competitions include water polo, volley ball, basketball, and indoor track and field events. On Fridays the interdormitory competitions include soft ball, track events, soccer, touch football, and swimming relays. Dormitory competition over the entire summer contributes to maintaining lively interest and gives the boys a chance to know one another in competitive sports.

At the opening of the session a swimming test is given to each boy, and those who cannot swim are required to take lessons. Swimming instruction is also given to others who wish it.

HEALTH SUPERVISION AND MEDICAL CARE

In addition to directing the physical fitness program described above, the Academy Department of Health supervises the Summer Session diet, the health of food handlers, the condition of the swimming pool, and other aspects of community hygiene.

The Isham Infirmary-Hospital, a small, well-equipped hospital of 55 beds, is approved by the Joint Commission on Accreditation of Hospitals, and is open throughout the Summer Session with a physician and trained nurses in residence. When necessary, hospitals and specialists of the cities of Boston and Lawrence can be reached very quickly.

There is no charge for care at the Isham Infirmary-Hospital in the event of injuries or illnesses which might be termed "home care." However, parents are responsible for the payment of medical and hospital services at Isham Infirmary-Hospital for the care of illnesses and conditions for which they, the parents, would have been responsible had the student been treated by his family physician in the student's home or hospital. The family sickness and accident insurance policy or a personal policy of the Blue Cross-Blue Shield type covering the student will meet most of such Isham Infirmary-Hospital care.

In order to assist parents in budgeting expense for extra medical care, the health and insurance plan is provided for all Summer Session students at $9.00 per student. This is a required fee. The plan covers the cost of doctors' bills and hospital care *outside* of Isham Infirmary-Hospital up to $500.00 for any one sickness or accident except in the event of accidental injury to sound, natural live teeth, when the limit of reimbursement is $100.00

Boys accepted in the Summer Session are required to submit medical forms furnished by the Session and completed by their family physician before June 24, 1961.

RELIGIOUS SERVICES

On weekdays there is a brief morning assembly conducted by various members of the faculty. On Sundays students are required to attend one of the several church services in the town of Andover.

MUSIC

This summer will be marked by an attempt to develop an active extracurricular music program featuring both vocal and instrumental music. This program will include trios, quartets and ensembles of various instrumentations, and if the musical enrollment is sufficient and balanced will include band, orchestra and chorus. Since the informal atmosphere of the Summer Session is conducive to the enjoyment of these pursuits, boys are urged to bring their musical instruments with them. Arrangements can also be made for private instruction in piano, orchestral and band instruments, at an extra but nominal fee.

EXPENSES

The charge for a boarding student at the Summer Session is $600, which covers board, room, and tuition. Each student is required to make a deposit of $25 when his application is accepted. The balance of the charge — $575 — is due by July 15. The charge for day students is $275, which covers tuition and meals in the Commons. Day students are required to make a deposit of $25 when admitted and to pay the balance by July 3.

All checks should be made payable to the Trustees of Phillips Academy. Preliminary deposits should be mailed to the Director of the Summer Session. Tuition payments should be mailed, upon receipt of bills, direct to the Comptroller of Phillips Academy. No rebate for the half

session in which he leaves will be made to a student who, for any reason, is dismissed or withdrawn.

Dormitory rooms are equipped with furniture, bed linen, and a blanket. Students must furnish their own desk lamps. In addition to clothes, towels, and personal effects, each student should bring such individual athletic equipment as he may wish. He should also bring a suit of solid color and white shirts to be worn to church on Sunday.

Expenses beyond the $600 charge should be light. They will include expenditures for personal laundry, books, incidentals, and spending money. Some of the books needed can be rented from the Loan Library in George Washington Hall. All students are expected to live simply, and expenditures beyond the Summer Session charges and transportation need not exceed $30-$40. Students are encouraged to set up drawing accounts in the Treasurer's Office.

A Class in English Composition

ADMISSIONS AND SCHOLARSHIPS

Because of the purpose and nature of the Summer Session, entrance examinations are not required of regular Summer Session students. All students, however, must present acceptable evidence of serious purpose, good character, and ability to meet the scholastic standards of Phillips Academy. In keeping with the Academy's position as a national school, the geographic location of applicants is also taken into consideration by the Admissions Committee. Whenever possible, a personal interview should be arranged. Since the capacity of the Summer Session is definitely limited, early application is highly desirable.

An applicant for admission should obtain from the Summer Session Office the official application form. A fee of $5, payable to the Trustees of Phillips Academy is required of each candidate. After completion of the first part by the parent or guardian, the application should be submitted to the Principal or Guidance Counselor of the school presently attended by the applicant, with the request that it be completed entirely and returned at once to the Director of the Summer Session.

Ten full scholarships of $600 each and a number of additional partial scholarships will be awarded to boys of unusual promise not previously enrolled in Phillips Academy whose chief purpose in coming to the Summer Session is to advance their education and increase their capacity to assume greater responsibilities. Scholarship boys will be expected to take some small job necessary to the smooth functioning of the Session, but such work will not interfere with full participation in the life of the school.

Awards will be based mainly on three factors: intellectual ability, character, and financial need. Also considered is achievement in some worth-while activity out-

side the classroom; i.e., responsible participation in community affairs, student government, or other extra-curricular activity, or developed special interests of an intellectual or artistic nature.

Scholarship applications should be made on special blanks which will be furnished on request. These, together with the materials which they call for, must be returned to the Director by May 1. Awards will be announced shortly thereafter. Although funds for scholarship aid are limited, it is hoped that no outstanding student of serious purpose will be prevented for financial reasons from enrolling.

PRE-NINTH GRADE STUDENTS

Special provision is made for a limited number of younger boys who plan to enter the Junior class (ninth grade) in Phillips Academy or elsewhere in September and who wish to gain experience for the regular ninth grade program. All pre-ninth grade boys will be required to take pre-ninth grade English and mathematics courses of nine hours each, although in some instances exceptions will be made. These courses serve to strengthen a boy's foundation work and improve the adjustment to the ninth grade.

Alfred E. Stearns House

Courses

The normal program for each boy is 18 hours of classroom work. With the exception of those enrolled in the pre-ninth grade program and in the Art of Communication course, every boy will take a six-hour English composition course in addition to the twelve-hour major course.

ART

Western Civilization & Culture — 12 Hours

from Egypt to Modern Times

A general introduction to a college program in humanities, this course is for eleventh and twelfth grade students. It traces the development of Western Civilization, on a historical basis, by means of the characteristic contributions of seven great cultures, seen principally through architecture, sculpture, painting, music, and literature. The chief materials for study are found in the rich collection of books on art and music and the library of phonograph records in the Oliver Wendell Holmes Library, and in the collection of pictures and sculpture in the Addison Gallery. During the Summer Session, the Addison Gallery will present a special exhibition, drawn from many sources, of painting, sculpture, and other works of art illustrating the main historical periods covered by the course.

Students electing this subject will take, as their required six-hour English program, a special, correlated course in composition, the materials for which will grow out of the subject matter of the twelve-hour course.

Studio Art — Voluntary

During the Summer Session, the art studio of the Addison Gallery of American Art will be open every day of the week — including Saturdays and Sundays — for any students who wish to carry on informal work in photography, drawing, painting, sculpture, and basic construction. Three afternoons a week — Tuesdays, Thursdays, and Saturdays — an instructor will be present from four o'clock to six o'clock to give advice and help. Here is a particularly rich opportunity for students electing the twelve-hour course in Western Civilization & Culture, but the studio is open to *all* students in the Session.

CLASSICS

Elementary Greek — 12 Hours

This course will introduce the students to basic Greek grammar, but the primary intention of the course will be to develop a reading ability of simple prose. With this introduction it is hoped that he will proceed alone in his study of the language or be ready for more advanced work under supervision. While the actual reading done will be slight, an increasing quantity of selections from Xenophon will be studied.

The prerequisite for this course is one year of another language.

Advanced Greek — 12 Hours

Life and Literature of the Heroic Age.

This course will consist of readings from the *Iliad* of Homer, partly in the original and partly in translation. From these readings and from supplementary projects will emerge a conception of the Heroic Age in Greece and the ideals for which it stood. But the emphasis of discussion will be the character of Achilles as he tries to live up to these ideals.

The successful completion of Greek I is considered a prerequisite for the course. Also during the year boys are expected to have reviewed the grammar lessons from the end of Greek I.

Elementary Latin — 12 Hours

This course will center upon the first elements of Latin forms (nouns and adjectives of the first three declensions, and the Indicative, Active, and Passive of the first two conjugations) to acquaint the beginner with the nature and function of inflectional endings. The aim is to prepare the pupil for a more systematic approach toward, and deeper insight into, the study of Latin and of other partially or fully inflected languages. At an early stage, simple readings will be introduced to encourage the pupil from the outset to see inflected forms as inter-related parts of a context working together for the expression of thought and meaning.

Intermediate Latin — 12 Hours

For boys who have studied elementary Latin for not more than a year. This course will offer a series of graded readings as the medium for a comprehensive review of basic fundamentals. Individual points of forms and syntax will be stressed as the need is indicated

by the pupils' progress in reading. Passages to be read will be selected from a variety of sources in the light of the pupils' needs, interests and ability.

Advanced Latin — 12 Hours

For boys who have studied Latin two years. A variety of selections from Eutrepius, Nepos, Livy and Erasmus will be read in the course, to afford such pupils as are terminating their study of the language a richer experience in Latin literature than is customarily offered in a Caesar course, and to bridge the gap between Caesar and Cicero for those who plan to take a third year of Latin. Basic fundamentals will be reviewed as the need is indicated by class performance.

Vergil and the Epic — 12 Hours

Of the Roman writers the man who has probably had the greatest effect on later artists in all languages and media is Vergil. Not only is the style of his poetry epic in the highest degree, but the problems which he examines have the most universal conception. Issues such as the individual's responsibility to his fellow men and the cost of pursuing with extreme dedication a lofty ideal are not bounded by the conditions of any one time — and these are the issues which form the basis of Vergil's *Aeneid*. To aid in the reading there will be a review of grammar. As much of the *Aeneid* will be read as time and the preparation of the class allows. There will also be a paper on a topic which the student finds of interest.

Completion of the two year Latin high school course is the prerequisite.

ENGLISH

Elementary Composition — 6 Hours

This course is designed for those pre-9th grade students who are not enrolled in Pre-9th Grade English, and for those students who desire a foundation course in mechanics, including spelling, punctuation, and the elements of the sentence. Frequent short themes are required; individual conferences are held weekly, or as need indicates.

Intermediate Composition — 6 Hours

This course, designed for ninth and tenth grade students, includes 1) a thorough review of grammar, spelling and punctuation; 2) a study of the syntax of the sentence; 3) a study of elementary rhetoric; 4) a study of the principles of paragraph organization. Students write narrative, descriptive, and expository paragraphs, with

the emphasis on exposition. Daily themes are required, and these furnish much of the material for class study. In addition, paragraphs for close study are supplied from all sources.

The texts for this course will be *Writing for College,* by Barrett, and *Essays Old and New,* ed. Jameson.

Advanced Composition — 6 Hours

This course is designed for eleventh and twelfth grade students, and includes 1) a review of the syntax of the sentence; 2) a study of rhetoric and style; 3) a review of the principles of paragraph development; 4) a study of the organization of the theme. Grammar, spelling, and punctuation are reviewed as the occasion demands and as opportunity arises. Students have an opportunity for creative writing as well as the personal essay. Further material is drawn from the class texts and from all literary sources. The texts for this course will be *The Elements of Style,* by Strunk and White, and *Studies in Reading and Related Writing* (D. C. Heath and Co.).

Developmental Reading — 12 Hours

A practical course in study and reading techniques. *NOT* a remedial program, but a course designed for the average student who wants to improve his reading and study habits.

The major objective, to improve study efficiency, is approached through class, library work, and individual conferences.

Class training in reading speed and the techniques of study is transferred to library and independent work. The library project develops familiarity with library resources and requires reading in: fiction, fact, biography, drama, and poetry.

As a part of independent study, the student is required to examine a literary figure and his period. The work, though guided, demands wide reading, independence, and an interest in the mature use of facts and ideas.

Pre-9th Grade English — 9 Hours

The purpose of Pre-9th Grade English is to instill in the student a sensitivity to words in both reading and writing. Class discussion frequently focuses on vocabulary from reading assignments; the student considers synonyms and shades of meaning, and learns to use the dictionary effectively. He has frequent writing assignments in and out of class, including a daily paragraph in his journal. There is ample opportunity for individual conferences on composi-

tion. His readings in the major literary genres include such texts as *The Pocket Book of Short Stories, The Pocket Book of Verse,* Shakespeare's *A Midsummer Night's Dream,* and Hemon's *Maria Chapdelain.*

Intermediate Literature 12 Hours

This course is designed for students in grades nine and ten. The course will meet twelve hours a week.

The work in literature will be distributed over fiction, the drama, poetry, and the essay with emphasis upon close reading, explication, and discussion.

Representative texts are *The Mayor of Casterbridge, Victory, Richard II,* poems from *The Book of Living Verse,* edited by Untermeyer.

Advanced Literature 12 Hours

This course is designed for eleventh and twelfth grade students. The course will meet twelve hours a week.

The work will be distributed over fiction, the drama, poetry, and the essay. The works studied are of greater depth than those studied in the Intermediate Course. There will be emphasis on close reading, explication, and discussion.

Representative texts are *Return of the Native,* by Hardy, *Short Story Masterpieces,* ed. Warren and Erskine, *Plato,* Jowett translation, *King Lear,* selected plays of Ibsen, Shaw, and Anderson, poems from *The Book of Living Verse,* ed. Untermeyer.

Literature of the Drama 12 Hours

The purpose of the course is to take advantage of the compactness and intensity of dramatic literature in order to provide a broad study of the possibilities of a genre, or literary form. Some plays will be intensively discussed in class; others will be read collaterally or as material for independent work. The course will include examples of the poetic drama, the drama of ideas, the problem play, the satirical comedy, and the tragic drama; periods represented will range from ancient to modern. Selection of texts will depend upon the maturity and experience of those enrolled in the course, but the following are playwrights whose works will almost certainly be included: Sophocles, Shakespeare, Ibsen, Shaw, Arthur Miller.

A Century of American Writings — 12 Hours

The purpose of this course is to examine, in chronological order, a number of American writings from the great creative period of 1850-55 through the creative period of the 1920's. Students will read and discuss, first, representative writings of Emerson, Thoreau, Hawthorne, Melville, and Whitman and then representative writings of Robinson, Frost, O'Neill, Lewis, Hemingway, and Faulkner. In each instance literary works will be examined in relation to the social, political, and economic background which produced them. There will be readings in Parrington's *Main Currents in American Thought* and other works. The anthology for class use will be *A College Book of American Literature,* edited by Ellis, Pound, Spohn, and Hoffman (American Book Co.).

The Art of Communication — 12 Hours

The purpose of the course is to make the student usefully aware of the many subtle ways in which words function to produce sound thinking, intelligent reading, and effective written and oral expression. To that end, the considerable amount of reading and writing demanded in the course involves much attention to such elements as problems of definition (assigning exact meanings to key terms), multiple meanings of words, the effects of context on meaning, the handling of abstractions and symbols, the difference between statements of fact and opinion, and the difference between the connotation and denotation of a word or statement.

Every attempt is made to improve the quality and extend the range of the student's thinking by training him to read both more exactly and more imaginatively in a wide variety of fields: social, political, scientific, literary, and philosophical. The materials read are subjected to close semantic analysis, in the belief that the habit of scrupulous attention to the meaning of the printed word results in the habit of clearer and more logical thinking; and that that,in turn, leads to more effective and substantial writing and speech.

Hayakawa's *Language in Thought and Action* (Revised Edition) is a basic text. Both that book and this course might appropriately be entitled *Language in Thought, Action, and Art,* for each gives approximately equal emphasis to the logical, social, and aesthetic functions of language.

This course is designed for students who will be entering college in the fall and for especially able boys who have completed eleventh grade English and wish to do further work at an advanced senior level.

Students taking this course are not required to take any other composition course.

HISTORY AND GEOGRAPHY

The Constitution of the United States and its Meaning Today — 12 Hours

This course will consist of a fairly intensive study of the Constitution of the United States and of important interpretations of that document by the Supreme Court. Topics to be emphasized will include desegregation, free speech, taxation, regulation of business, and other matters of current interest. The work of the course will consist of assigned readings, class discussion, occasional lectures, and possibly the writing of a paper on a constitutional topic.

Though designed to be of general interest, this course should be particularly profitable to students who are considering careers in either law or government.

Introduction to Asia — 12 Hours

It is the purpose of this course to introduce the American student to Asia, through study and critical examination of the histories of China and Japan.

This approach does not nor can it profitably, exclude consideration of Asia's classical civilization; but it does tend to place major emphasis upon the past century and one half. Topics covered include: The Roots of Chinese and Japanese Society; the Western Impact Upon Asia; China's and Japan's Response to the West; the Rise of Asian Nationalism; Japan as a World Power; the Rise of Mao and the Chinese Communists; Asia in World War II; United States Policy in Post-War Asia.

The course consisting of reading, lectures, class discussion and map exercises is open to members of the eleventh and twelfth grades. Textual material and supplementary readings are taken from such texts as Clyde, P. H., *The Far East;* Reischauer, E. O., *Japan Past and Present;* Fairbanks, J. K., *The United States and China.*

World Geography — Economic and Political — 12 Hours

The purpose of this course is to prepare students for more effective work in college or advanced school classes, and to increase their knowledge of the world in which we live. The course supplements work done in History, Civics, and Physical Geography although advanced school work in these fields is not required as a prerequisite for admission to the group.

The student will study the economic areas of the world with particular reference to their physical, economic, and political features. No text book is used. The student must learn, therefore, to take adequate notes on outside reading, the class lectures, and class discussions. There will be weekly tests on assignments and class work. During the session, each student must select a pertinent research project for development into a term essay. A feature of the course is the discussion of the factors responsible for the development of the United States as a world power.

The Phillips Academy Library will be available to members of the course and they will be required to make use of the resources of this modern library.

The course is open to boys in the eleventh or twelfth grades and other qualified students.

MATHEMATICS

Pre-9th Grade Mathematics — 9 Hours

A course for boys who have finished eighth-grade arithmetic. It will attempt to improve their mastery of the basic arithmetic skills and at the same time develop their mathematical maturity by consideration of number scales; the number system; some intuitive geometry, etc.; and thus make them ready for a strong course in first-year algebra.

Topics in Elementary Algebra — 12 Hours

This course is designed for those boys who have had an introduction to algebra but have not progressed far enough to be ready for the Phillips Academy course in intermediate algebra. Attention will be paid to the structure and laws of algebra as well as to attaining mastery of the necessary manipulative skills.

Topics in Intermediate Algebra — 12 Hours

This course is designed for boys who have had at least one year of elementary algebra. The topics will be selected as indicated by the needs of those electing the course. Although it will be impossible to cover a full year's work for boys who have not had second-year algebra such boys may be able to supplement this course later on by some work on their own and pass a credit examination. This course will also serve to review work for a boy who has not mastered it sufficiently to pass the Phillips Academy placement examinations in Algebra II.

An Introduction to Geometry — 12 Hours

Designed for boys who have not had any formal geometry before, this course will use the textbook prepared by the School Mathematics Study Group as its basic material but will explore additional topics in both two and three dimensions as the interest and needs of the group dictate.

An Introduction to Analytic Geometry — 12 Hours

Open to boys who have had one year of algebra and one year of Geometry. A study of the power of uniting the methods of two different branches of mathematics on certain problems. This course will show a boy how to use geometric ideas to study algebraic problems and algebraic methods to study problems usually posed in geometric terms.

A Study of Curves and Motion — 12 Hours

A course for boys who have had only one year of algebra. This will be an elementary study of the fundamental ideas of the calculus. Usually reserved for much later, the study of these ideas is perfectly feasible at this level and should prove fascinating for boys of this age.

An Introduction to Mathematical Thinking — 12 Hours

This course is open to boys who have had at least two years of high school mathematics. It will consider the methods of logical thought which are vital in all fields of mathematics. A certain amount of symbolic logic will be studied but the main emphasis will be on the illustration of the use of logic in even elementary mathematics.

Elementary Functions — 12 Hours

The concept of the function is of fundamental importance for all mathematics but it is not often considered thoroughly in secondary schools. This course will undertake a careful study of the function concept in several elementary situations. Algebraic, exponential, logarithmic and trigonometric functions will be taken up, but in such a manner as not to duplicate work done in regular courses in Algebra and Trigonometry.

Open only to boys who have completed at least three years of high-school Mathematics with good grades.

Probability with Applications to Elementary Statistics 12 Hours

The increasing importance of statistical methods in many fields such as business law, medicine, and industrial manufacturing, as well as in the biological, physical, and sciences has caused the commission on Mathematics to call for beginning the study of these methods in the secondary schools.

This course will begin with some topics in algebra such as set theory, permutations and induction, which enable one to approach probability via sample spaces and the random variable. The applications of probability theory to simple physical events leads into the study of elementary statistical methods and some consideration of statistical inference.

Topics in Linear Algebra 12 Hours

Open to those who have had at least three years of mathematics in high school. A course in elementary vector analysis and matrix theory. Material of this kind is of increasing importance for engineers and physicists as well as being of great importance for future mathematicians. It is not usually available and many boys might find this course of great interest and value.

MODERN LANGUAGES

Elementary French 12 Hours

Primarily devoted to developing speaking and listening skills. Text: Robin & Bergeaud, Book I.

Intermediate French 12 Hours

In addition to developing speaking and listening, there would be a considerable amount of reading done. Texts: Robin & Bergeaud, Book I; Department Anthologie.

Advanced French 12 Hours

Primarily devoted to developing the reading skill plus some writing, mostly dictation and question-answering, not free composition. Texts: Robin & Bergeaud, Book II; Department Anthologie.

All three courses will be conducted exclusively in French, and there will be no translation either from English into French or French into English.

Elementary Spanish — 12 Hours

This course is conducted entirely in Spanish. Through the use of intensive drill in basic patterns speaking and listening skills are fully developed. A text in Spanish aids the students in expressing themselves in writing and in reading comprehension. There are short dictations daily.

Intermediate Spanish — 12 Hours

Intermediate Spanish continues the aims of the elementary Spanish course and is conducted in Spanish. Some emphasis is placed on the geography and current trends in South America and Spain. Every opportunity is given the students to express themselves orally and in writing. There are rèsumès in Spanish — oral and written — based on reading from selected short stories.

Advanced Spanish — 12 Hours

This course is a continuation of the Intermediate course. The emphasis is on fluency in oral expression and reading. Original oral themes in Spanish are an integral part of the course. The students are introduced to the lives and works of the great Spanish painters El Greco, Velázquez and Goya.

MUSIC

History and Theory of Music — 12 Hours

The purpose of this course is to help students gain an understanding of the Theories, Composers, Styles and Forms from the Greek through the Contemporary. The subject matter is illustrated with recordings.

SCIENCE

Modern Laboratory Physics — 12 Hours

This course is for qualified students who have successfully completed one year of physics and wish to strengthen their background as well as to be challenged by new work in the field of mechanics, heat, electricity, light, and modern physics. The course will consist of classroom lectures, demonstrations, and recitations as well as laboratory work. The laboratory equipment of the physics department is available to the students and project work may be done in place of regularly assigned laboratory work in so far as practicable.

Introduction to Research in Biology — 12 Hours

A laboratory course designed to acquaint the student with some of the problems, methods, and rewards of scientific investigation. The proper design of experiments, the use of controls, the suppression of non-significant variables, and the limitations imposed by apparatus are some of the many lessons to be learned from an experience of this sort. Above all, the student may be stimulated to use his imagination more freely, to persevere in the face of obstacles, and to gain a true appreciation of the search for knowledge.

The course will consist of laboratory or field work on a suitable project in the biological sciences. The type of project undertaken will be determined after consultation between the individual student and the instructor. The facilities of the Academy's well-equipped biology laboratory and conservatory will be reserved exclusively for the students enrolled in this course. There will be no formal lectures.

Successful completion of one year's study in Biology is a prerequisite. The enrollment is limited to ten students.

Structural Chemistry — 12 Hours

This course will be given to students who have completed one year of high school chemistry. A brief study of selected papers by Boyle, Lavoisier, and Dalton will give the student an introduction to the beginning of modern chemistry. The main portion of the course will be devoted to the structure of molecules, beginning with the work of Pasteur, van't Hoff, and E. Fischer, and continuing to the renaissance of structural chemistry in recent times. Examples will be given of the importance of molecular geometry to biological systems and to the study of reaction mechanisms. Students will construct models of molecules and will perform laboratory preparations of compounds which have the same formula but different atomic arrangements within their molecules. Although the course contains some historical material, modern principles will be stressed. Knowledge of a foreign language is not a prerequisite, but qualified students will have the opportunity to translate a pertinent article from a French or German journal of chemistry.

Summer Session Students—1960

Abbott, Stephen H.
Lowell, Mass.
Adams, Randall W.
Brookside, N. J.
Adams, Stephen R.
Frankfort, Indiana
Alexander, Duncan M.
Big Rock, Illinois
Allen Emerson R. (Kim)
Hicksville, New York
Allen, Thomas H.
Mamaroneck, N. Y.
Arlow, Seth M.
Great Neck, N. Y.
Austrian, Mark L.
Fairlawn, N. J.
Banton, Clarence N.
Detroit, Mich.
Barron, Stephen E.
Binghamton, N. Y.
Bartley, Paul F.
Lawrence, Mass.
Baxter, William F.
Nashua, N. H.
Becker, Paul K.
Oxford, Ohio
Bergquist, Kenneth P., Jr.
Bedford, Mass.
Berkman, Anthony S.
Great Neck, N. Y.
Bermann, George A.
Rockville Centre, N. Y.
Bertsche, David C.
Augusta, Ga.
Bingham, Price T.
Owego, N. Y.
Bixby, Jonathan L.
Swampscott, Mass.
Blatterman, Todd F.
New York, N. Y.
Bosking, Robert P.
Lincoln, Nebr.
Botein, Michael H.
New York, N. Y.
Brooks, David
Niagara Falls, N. Y.
Browder, David G.
Missoula, Mont.
Brush, David A.
Darien, Conn.
Bryant, Anthony G.
Halifax, Nova Scotia
Carl, Peter W.
Islip, N. Y.
Carliner, Geoffrey O.
Washington, D. C.
Cinberg, James
New York, N. Y.
Citrin, Kerry A.
Portland, Maine
Clift, Daniel K.
Andover, Mass.
Close, Richard D.
Lisbon Falls, Maine
Cloyd, Malcolm E.
Dallas, Texas
Cohen, Mitchell S.
Gloucester, Mass.
Colquitt, James E.
Montgomery, Alabama
Cornwell, David L.
Paoli, Indiana
Court, Colley B., Jr.
Bradford, Mass.
Cover, Ralph A.
Columbia, Tenn.
Coyle, John L., Jr.
San Bernardino, Calif.
Curcuru, Steven N.
Southold, L. I., N. Y.
Cutler, Edward T.
Merion, Penna.
Dankner, Alan
Belmont, Mass.
Davis, (John) Jefferson
Berlin, N. H.
Davis, Paul G.
Medford, Mass.
Dickler, Robert A.
So. Orange, N. J.
Downing, Conway A., Jr.
Newport News, Va.
Draper, Robert M.
Memphis, Tenn.
Drysdale, Maurice D.
Randolph, Vt.

Dunham, Glenn E.
El Cerrito, Calif.
Dupcak, Joseph D.
E. Setauket, L. I., N. Y.
Durham, Harry B.
Casper, Wyoming
Dyro, Joseph F.
Portland, Maine
Eastman, Roger T. (Tim)
Bronxville, N. Y.
Edmonds, Norman J.
Happy Valley, Labrador
Egbert, Robert N.
Stamford, Conn.
Egginton, Everett
Garden City, N. Y.
Eide, Henry H.
Missoula, Mont.
Elias, Frederick J.
Methuen, Mass.
Englander, Edward S.
Jamaica, N. Y.
Fager, John C.
Garden City, N. Y.
Farley, Michael R.
Los Angeles, Cailf.
Feinstein, Robert M.
New Bedford, Mass.
Ferris, Fred C.
Belmont, Mass.
Floto, Ronald J.
Charlotte, N. C.
Flude, John W., Jr.
Houston, Texas
Foreman, Robert B.
Glencoe, Illinois
Friedberg, John C.
Scranton, Penna.
Friedman, Paul R.
Arlington, Va.
Friedman, William R., Jr.
New York City
Gallagher, Paul .
Armonk, New York
Gallup, Frederick W.
Bradford, Penna.
Gang, David L.
Huntington, W. Va.
Gardner, Stephen E.
Clarks Green, Penna.
Garson, David C.
Greenfield, Mass.
Gerrity, Richard W.
Loudonville, N. Y.
Gerson, Raymond E.
Manhasset, N. Y.
Giblin, Paul R.
Methuen, Mass.
Grandberg, Martin G.
Sharon, Mass.
Green, Gerald M.
Lowell, Mass.
Greene, Kenneth R.
Somerville, Mass.
Grinnell, Kenneth L.
Lincoln, Mass.
Grinnell, Richard S.
Lexington, Mass.
Grossman, Marc W.
Taunton, Mass.
Hanna, George V.
Jacksonville Beach, Fla.
Harding, William H., Jr.
Andover, Mass.
Hardy, Jack L.
Cambridge, Mass.
Harrington, John P.
Lowell, Mass.
Harsh, Robert A.
Binghamton, N. Y.
Haviland, Peter L.
Montclair, N. J.
Hecker, Frederick H.
McKeesport, Penna.
Hempel, Robert C.
New York, N. Y.
Hodge, Paul D.
E. Providence, R. I.
Hollander, Steven L.
Hollywood, Fla.
Howe, John G.
Denver, Colo.
Hull, Richard J.
Missoula, Mont.
Huntsberger, James R.
Palo Alto, Calif.
Hurt, Newell P.
Cicero, Ill.
Hurwitz, Stephen A.
New Bedford, Mass.

Hutt, Howard C.
Hollywood, Fla.
Jacobs, Carl H.
Miami, Beach, Fla.
Jampolsky, Paul D.
Upper Montclair, N. J.
Jankowsky, Joel
Tulsa, Olka.
Johnston, James D.
Lexington, Mass.
Kaufman, Jack B., Jr.
Wilmette, Illinois
Kaufman, Peter S.
Natick, Mass.
Kesselman, Donald J.
Woodmere, N. Y.
Kirschner, Richard D.
Clifton, N. J.
Kornbluth, Jesse L.
Abington, Penna.
Krizan, Richard M.
Niagara Falls, N. Y.
Krupp, George D.
Chestnut Hill, Mass.
Kurlantzick, Lewis S.
Fair Lawn, N. J.
Landon, Gregory C.
Vestal, N. Y.
Landry, C. Kevin
Andover, Mass.
Lange, Bjorn R.
Bridgeton, N. J.
Lasersohn, Stephen A.
New York, N. Y.
Leonard, Richard W.
Larchmont, N. Y.
Lepie, Jonathan G.
Chestnut Hill, Mass.
Leslie, Andrew E.
El Campo, Texas
Levy, Andrew H.
Washington, D. C.
Levy, James W.
Shelton, Conn.
Lewin, Robert D.
Malden, Mass.
Lewis, Paul M.
Portland, Maine
Lionett, David J.
Holden, Mass.
Look, Allen M., Jr.
Rye, New York
Lowry, Joseph P.
Lexington, Mass.
Lynch, Timothy S.
Chappaqua, N. Y.
McCarthy, John C.
North Andover, Mass.
McCarthy, William H.
Chelsea, Mass.
McGraw, Kenny O.
Memphis, Tenn.
Machinist, Peter B.
Manchester, N. H.
Mariano, Vincent J.
Methuen, Mass.
Marum, Andrew W.
Andover, Mass.
Mathes, Stephen J.
Great Neck, N. Y.
Maxson, David N.
Lexington, Ky.
May, John S.
Lawrence, Mass.
Mayer, Stephen P.
Cleveland Heights, Ohio
Mazonson, Larry S.
Malden, Mass.
Meany, Thomas F.
Roslindale, Mass.
Merriam, Walter W.
Chester, N. Y.
Miller, Neil I.
Kingston, N. Y.
Miller, Ralph K.
Newton, Mass.
Moger, Todd F.
Riverside, Conn.
Moody, James P.
Haworth, N. J.
Moore, Richard E.
Hollywood, Calif.
Morrill, Justin S., Jr.
Houston, Texas
Morse, Joel
Bedford, N. Y.
Mosenthal, William T., Jr.
Norwich, Vermont
Nathanson, John C.
Merrick, N. Y.

Nevins, Richard P.
Windsor, Conn.
Newcomb, Wyllys S., Jr.
Valhalla, New York
Nierenberg, Roy A.
Roslyn Heights, N. Y.
Norcross, Boyd A., Jr.
Rowley, Mass.
Olans, Richard N.
Medford, Mass.
Orkin, Frededick K.
New York, N. Y.
Palmer, John R.
Haverhill, Mass.
Pardue, Tarzi A.
Ft. Lauderdale, Fla.
Parker, Joseph B., Jr.
San Antonia, Texas
Peirce, Jonathan W.
Searsport, Maine
Pennell, William M.
Portland, Maine
Phillips, Richard A.
Greenfield, Mass.
Pico, Alberto J.
Santurce, P. R.
Pieczenik, George
New York, N. Y.
Polydys, Bruce P.
Bridgeport, Conn.
Porter, John B.
Houston, Texas
Porter, Richard C.
Houston, Texas
Powell, Arthur F.
Atlanta, Ga.
Price, Robert E.
Little Rock, Ark.
Proegler, John R.
Painesville, Ohio
Randall, Theodore A., III
Alfred, N. Y.
Rapson, William R.
Tucson, Arizona
Read, Laurance A.
Lake Forest, Ill.
Rich, Joel D.
Tulsa, Okla.
Riley, Robert J.
Lebanon, Penna.
Rill, Thomas A.
Syracuse, N. Y.
Rivard, Donald E.
Chelmsford, Mass.
Rock, James C.
Waverly, N. Y.
Romansky, Stephen H.
Washington, D. C.
Rorer, Stewart B., III
Philadelphia, Penna.
Roth, Jay D.
Roslyn Heights, N. Y.
Rubenstein, Alan B.
Waban, Mass.
Rugge, John K., Jr.
W. Winfield, N. Y.
Russman, Robert E.
Medford, Mass.
Rynne, Michael V.
Lowell, Mass.
Sanders, Jack R.
Hampton, Va.
Scheuer, Eric M.
Scranton, Penna.
Schwartz, Jonathan K.
Great Neck, N. Y.
Seegal, John F.
Brookline, Mass.
Seeman, John A.
New Rochelle, N. Y.
Shah, Vijay K.
Bombay, India
Sheehan, John H.
Chicago, Illinois
Shubs, Peter A.
New Haven, Conn.
Simon, Jamil
Lawrence, N. Y.
Simon, Stuart A.
Middletown, N. Y.
Smollar, Paul R.
Washington, D. C.
Sneirson, William B.
Swampscott, Mass.
Spelyng, Edward C.
Englewood, N. J.
Spindell, Robert F., Jr.
Kenilworth, Illinois
Spurge, Warren H., II
Osprey, Fla.

Stewart, Walter W.
New York, N. Y.
Stickland, David W.
Andover, Mass.
Strawwbridge, Allen.
Dresden, Tenn.
Szanto, Jeffrey P.
Manchester, N. H.
Thomas, Arthur, Jr.
Opelousas, Louisiana
Thomason, Tommy H.
Windsor, Conn.
Thompson, MacRobert S.
Ft. Worth, Texas
Thornton, Allen H.
Chillicothe, Ohio
Thornton, Roger D.
Chillicothe, Ohio
Thornton, W. Laney
Los Angeles, Cailf.
Townsend, Preston C., Jr.
Rehoboth Beach, Fla.
Tracy, Frank B.
Owego, N. Y.
Trimble, Henry W., III
Montclair, N. J.
Tsang, James
Forest Hills, L. I., N. Y.
Upson, Paul W.
Westfield, Mass.
Vanderbilt, William H., Jr.
Chestnut Hill, Mass.
Van Zandt, Craig W.
Andover, Mass.
Veltman, John P.
Severna Park, Md.
Wadsworth, Geoffrey H.
Garden City, N. Y.
Waxler, Robert P.
New Bedford, Mass.
Weene, Jerald R.
Chestnut Hill, Mass.
Wei, Robert C.
Bronxville, N. Y.
Weinstein, David N.
Cambridge, Mass.
Whitehurst, C. Stanley
Ettrick, Virginia
Woosley, Paul C.
Ann Arbor, Mich.
Wyzanski, Charles M.
Cambridge, Mass.
Yaw, Robert E., II
Cedar Rapids, Iowa
Yoken, Robert A.
Providence, R. I.

Phillips
Academy
Andover
Est. 1778
INFORMATION

The 1961 Summer Session Faculty

John Mason Kemper, A.M., L.H.D., Litt.D.	*Headmaster*
Robert Penniman Hulburd, M.A.	*Director*
Harold Holmes Owen, Jr., A.M.	*Assistant Director*
Frederick Scouller Allis, Jr., A.M.	*History*
Cornelius Gordon Schuyler Banta, S.B.	*Mathematics*
Emory Shelby Basford, A.B.	*English*
George William Best, B.S.	*Mathematics*
William John Buehner, A.M.	*Latin*
Donald Miller Clark, M.D.	*Medical Director*
William Biggs Clift, Jr., B.S.M.	*Athletic Director*
James Harold Couch, A.M.	*Spanish*
Frank McCord Eccles, S.B.	*Mathematics*
Brendan John Farrington, A.B.	*Housemaster*
Wilfred Freeman	*Art*
Alexander Dunnett Gibson, A.M.	*French*
Allan George Gillingham, Ph.D.	*Classics*
Fred Harold Harrison, A.M.	*English*
Edmond Emerson Hammond, Jr., Sc.M.	*Mathematics*
Louis John Hoitsma, Jr., Ed.M.	*Mathematics*
Simeon Hyde, Jr., A.M.	*English*
John Ward Kimball, A.B.	*Biology*
Hart Day Leavitt, A.B.	*English*
Francis Bertrand McCarthy, A.B.	*Art of Communication*
John Claiborne McClement, Ed.M.	*Mathematics*
Peter Quackenbush McKee, Ed.M.	*Physics*
Miles Sturdivant Malone, Ph.D.	*Geography*
Gordon Anthony Marlow, A.B.	*English*
Donald Emery Merriam, A.M.	*French*
Thomas Michael Mikula, A.M.	*Mathematics*
Clement Morell, A.M.	*Mathematics*
William Stewart Parquette, M.A. (Pomfret)	*English*
Thomas Rees, Ph.D.	*Chemistry*
Thomas Joseph Regan, A.M.	*English*
Albert Karl Roehrig, Ed.M.	*Developmental Reading*
Harrison Schuyler Royce, Jr., M.I.A.	*History*
Peter Andrew Soderbergh, A.M.T. (Andover High School)	*English*
Stephen Stanley Sorota, S.B.	*Athletics*
Frank DeWitt Thornton, B.M.Ed.	*Music*
Stephen Whitney, A.M.	*French*